

COMMUNITY STRUCTURE OF MIGRATORY WATERBIRDS  
AT TWO IMPORTANT WINTERING SITES  
IN A SUB-HIMALAYAN FOREST TRACT  
IN WEST BENGAL, INDIA

Asitava Chatterjee<sup>1</sup>, Shuvadip Adhikari<sup>2</sup>, Sudin Pal<sup>\*2</sup>,  
Subhra Kumar Mukhopadhyay<sup>2</sup>

ABSTRACT

Chatterjee A., Adhikari S., Pal S. Mukhopadhyay S. K. 2020. *Community structure of migratory waterbirds in two important wintering sites at sub-Himalayan forest tract in West Bengal, India*. Ring 42: 15–37

The waterbird community structures of two sub-Himalayan wetlands (Nararthali and Rasomati) situated in forested areas were compared during the wintering period. These wetlands had similar geophysical features but were subject to different conservation efforts. Sixty species of waterbirds, including four globally threatened species, were recorded during the study. Nararthali was found to be more densely inhabited ( $116.05 \pm 22.69$  ind./ha) by birds than Rasomati ( $76.55 \pm 26.47$  ind./ha). Density increased by 44.6% at Nararthali and by 59% at Rasomati over the years of the study, from 2008 to 2015. Winter visitors increased considerably at Nararthali (66.2%), while a 71.1% decrease at Rasomati clearly indicated degradation of habitat quality at that site during the later years. Luxuriant growth of *Eichhornia crassipes*, siltation, poor maintenance and unregulated tourist activities were the key factors leading to the rapid degradation of Rasomati. Nararthali, on the other hand, a well-managed wetland habitat, showed an increasing trend in bird densities. Therefore, poor habitat management and rapid habitat alterations were observed to be the main reasons for depletion of bird density in the wetlands of eastern sub-Himalayan forest regions.

---

<sup>1</sup>Office of the Divisional Forest Officer, Rupnarayan Division, Medinipur, West Bengal, India; <sup>2</sup>Ecotoxicology Project Laboratory, Government College of Engineering and Leather Technology, Salt Lake, Kolkata, West Bengal, India. \*Corresponding Author: Sudin Pal: sudindgp1@gmail.com

---

**Keywords:** Buxa Tiger Reserve, Patlakhawa Protected Forest, Dooars, Terai, vegetation cover, wetland management